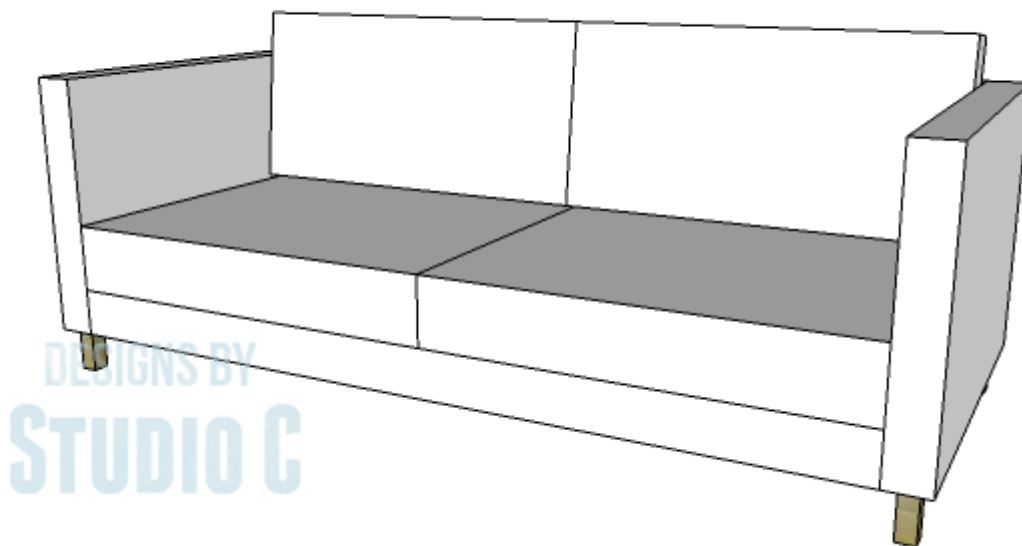


The Third Piece in the Carlsbad Collection – the Sofa!

DIY Plans to Build the Carlsbad Sofa

It is time for the next piece in the Carlsbad collection – the DIY plans to build the Carlsbad sofa! This piece is constructed in the same manner as the chair, it is just wider. (Plus it has a few more pieces!) The sofa is another great looking, easy to build piece!

build a carlsbad sofa



Materials:

- 1-1/4" pocket hole screws
- 2-1/2" pocket hole screws
- 1-1/4" brad nails

- 1-1/2" screws
- 2" screws
- 2-1/2" screws
- 3-1/2" screws
- 4 – 4" furniture legs with mounting plates
- Wood glue
- Sandpaper (100, 150, 220 grits)
- Finishing supplies (primer & paint, or stain, sealer)

Lumber:

- 2 – 1×4 at 6'
- 1 – 1×6 at 4'
- 1 – 1×6 at 6'
- 4 – 1×8 at 6'
- 4 – 2×4 at 8'
- 1 sheet of 1/4" plywood
- 1 – 2' x 4' sheet of 3/4" plywood
- 1 sheet of 3/4" plywood

Cut List:

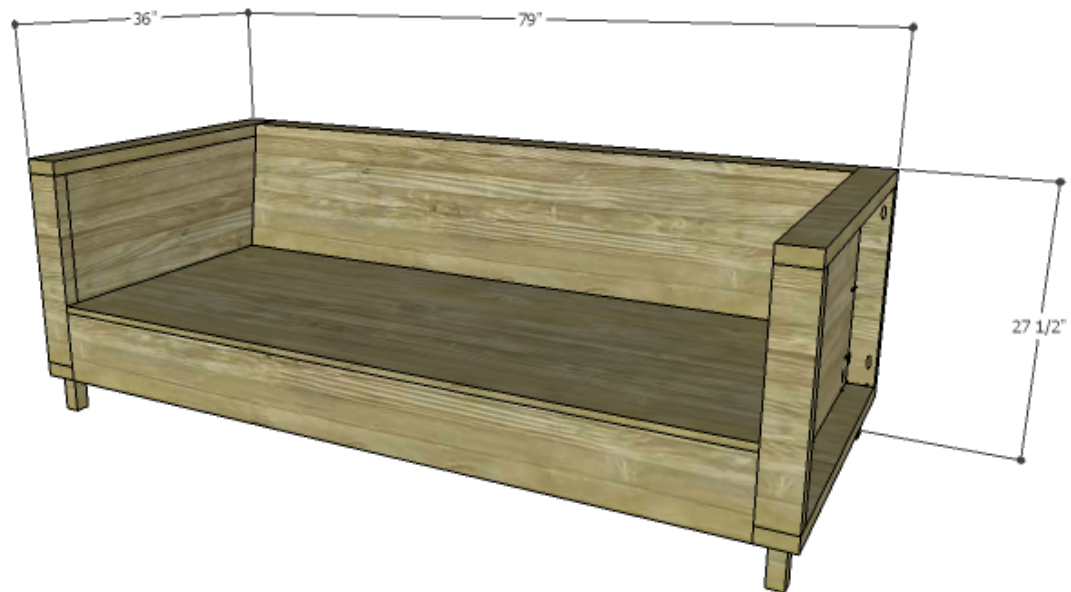
- 4 – 2×4 at 36" – Arm Sections, Top & Bottom
- 4 – 2×4 at 20-1/2" – Arm Sections, Sides
- 2 – 3/4" plywood at 20-1/2" x 33" – Arm Panels
- 2 – 1/4" plywood at 23-1/2" x 36" – Arm Outer Panel
- 2 – 1×8 (ripped to 7-1/4" wide) at 72" – Seat Frame
- 4 – 1×8 (ripped to 7-1/4" wide) at 34-1/2" – Seat Frame
- 3 – 1×8 (ripped to 7-1/4" wide) at 23" – Back Frame Supports
- 1 – 3/4" plywood at 36" x 72" – Seat Deck
- 3 – 1×6 at 13-3/4" – Back Sides
- 1 – 1×6 at 72" – Back Frame
- 1 – 1×4 at 72" – Back Frame
- 2 – 1×4 at 34-7/8" – Back Frame Support
- 1 – 1/4" plywood at 15-1/2" x 72" – Seat Back

For the Upholstery:

The entire frame will be covered with 1" foam and fabric. The back cushion will be made with 4" foam, and the seat will be made with 6" foam. I like to purchase the high-density foam for cushions on eBay. A 1" foam mattress topper will be much more economical to purchase for padding the frame.

The seat cushions will measure approximately 30-1/2" x 36" and the back cushions will measure approximately 17-3/8" x 36". I have written a tutorial on [how to make a basic box cushion](#) that is easy to follow and requires minimal sewing skills.

- Duct tape
- Spray adhesive (I recommend 3M Super 77 – it is the best!)
- 10 yards of 54" wide drapery fabric, canvas, or cotton duck
- 2 – King-size 1" foam mattress topper
- 1 – Twin size 1" foam mattress topper
- 6" foam at 26-1/2" x 72"
- 4" foam at 17-3/8" x 72"
- 4 – 48" upholstery zippers or velcro
- Contrasting thread
- Stapler and staples (if you have a pneumatic stapler, that would be best!)
- Upholstery nails or decorative gimp (trim)

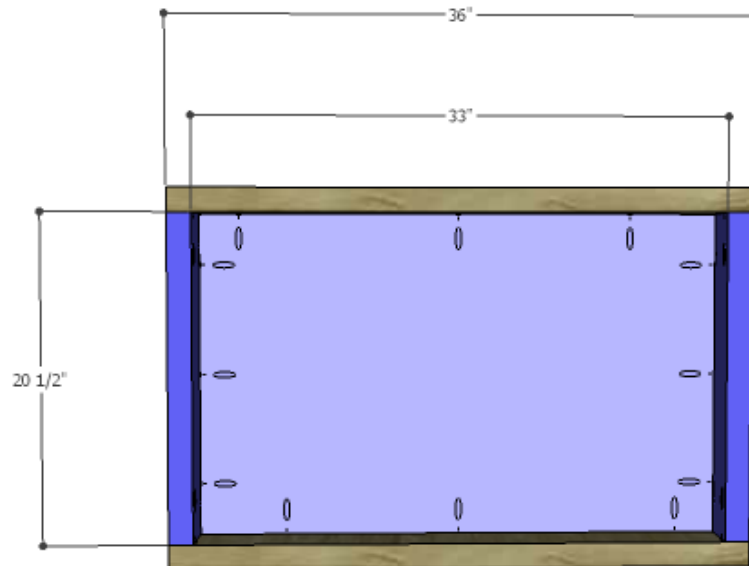


Click on the drawings for a larger view!

Step One

Cut the pieces for the arm frames and panels. With the pocket hole jig set for 1-1/2" material, drill pocket holes in each end of the shorter arm pieces. Assemble the frames using glue and 2-1/2" pocket hole screws.

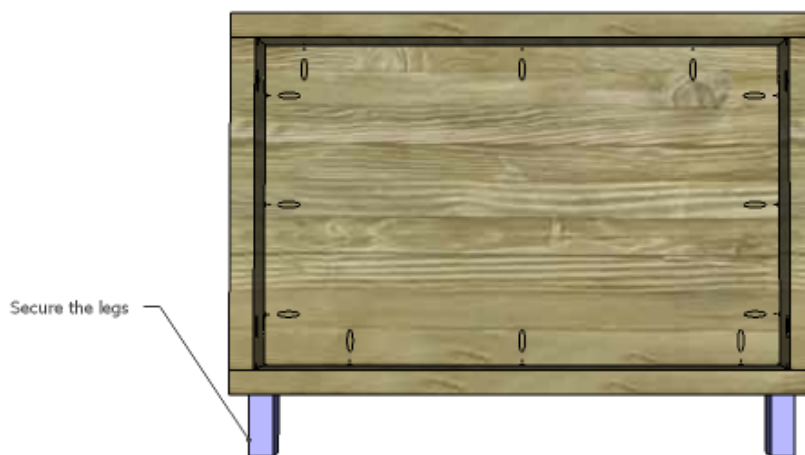
Set the pocket hole jig for 3/4" material and drill pocket holes in all four edges of the panels. Insert the panels into the frames and secure using glue and 1-1/4" pocket hole screws. The outside face (without pocket holes) will be flush with the outside face of the frame.

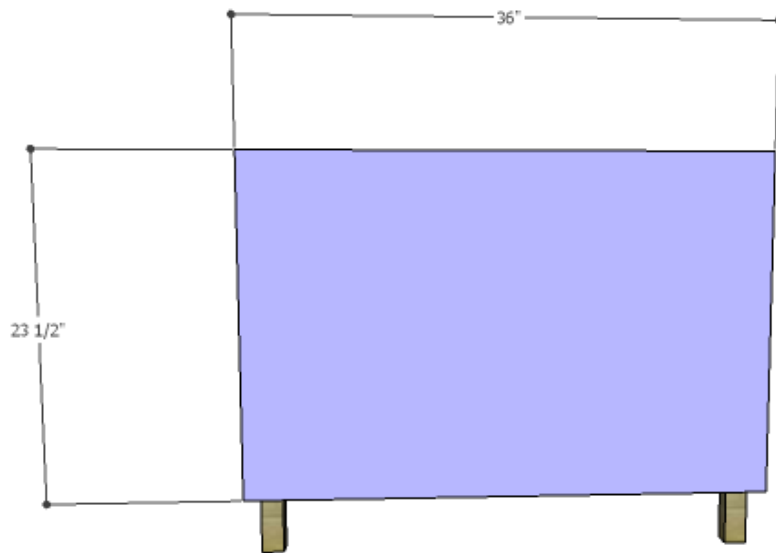


Step Two

Install the mounting plates for the bottom of the legs on the bottom of each frame locating the plates 1" away from the front and back faces of the frames.

Cut the 1/4" plywood pieces for the outer panels. Secure the panels to the open area of the frame using glue and 1-1/4" brad nails. Set the arm frames off to the side.

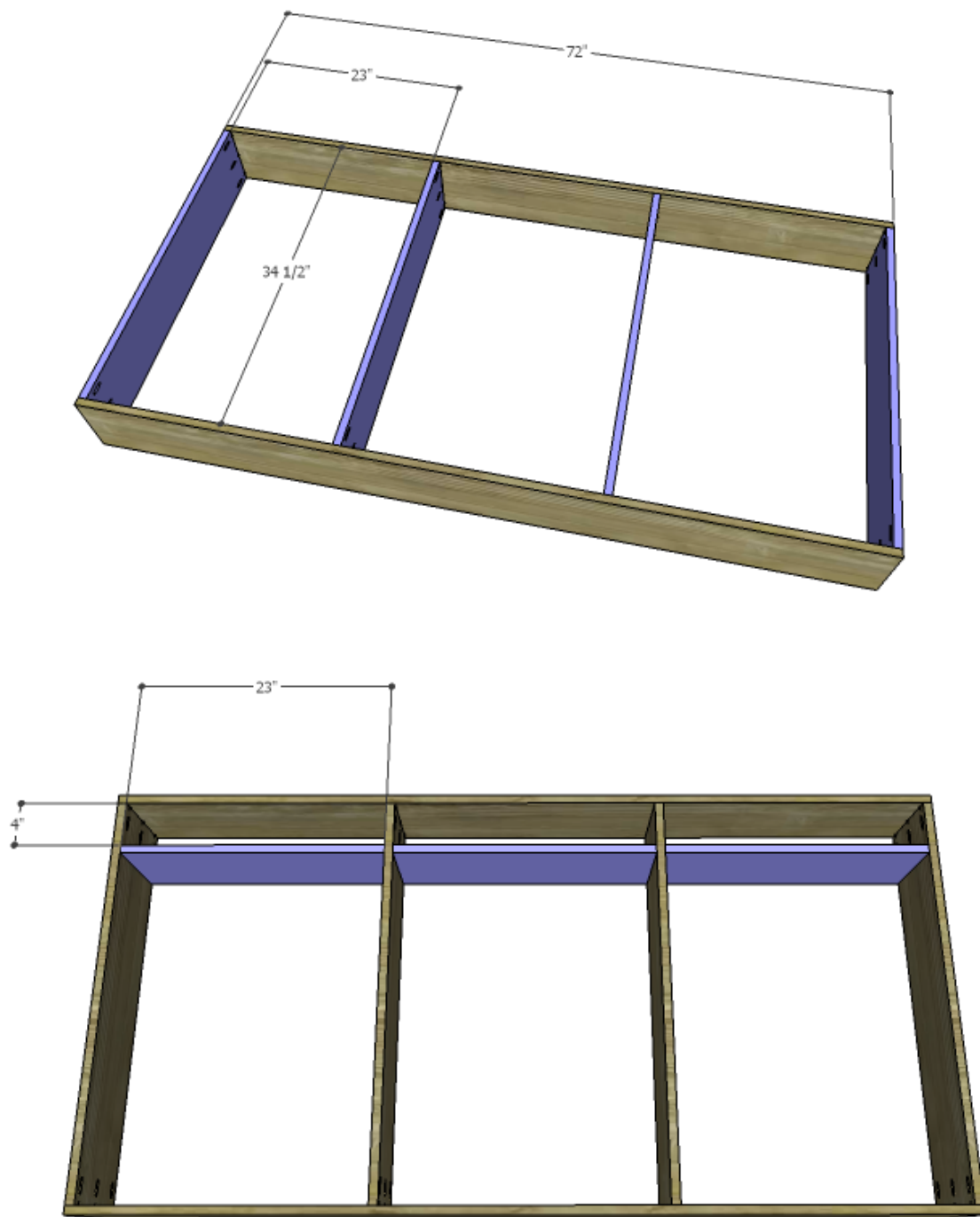




Step Three

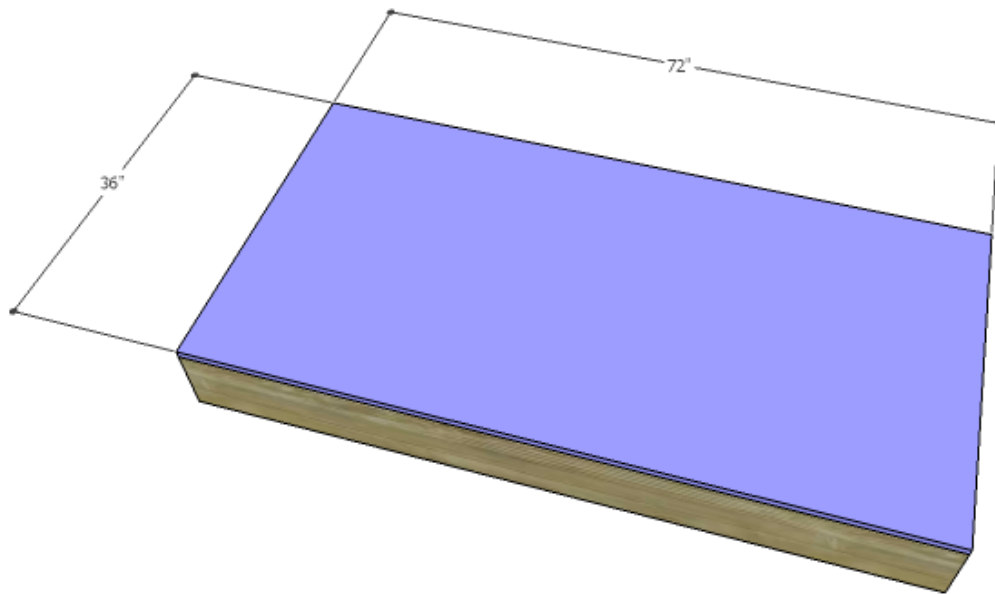
Cut the pieces for the seat frame. Set the pocket hole jig for 3/4" material and drill pocket holes in each end of the shorter side and middle pieces. Assemble the frame using glue and 1-1/4" pocket hole screws.

Cut the pieces for the back supports and drill pocket holes in each end. Secure the supports to the frame as shown using glue and 1-1/4" pocket hole screws.



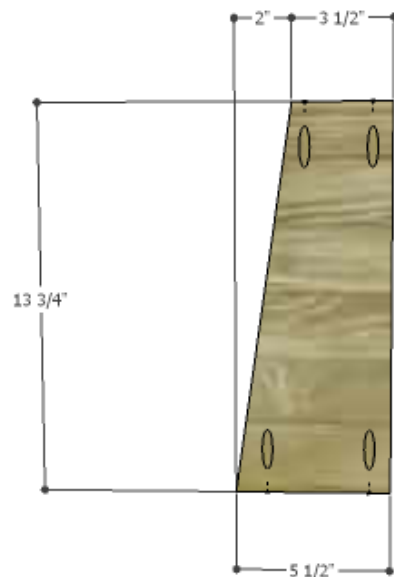
Step Four

Cut the piece for the seat deck. Secure the seat to the frame and supports using glue and 1-1/2" countersunk screws.



Step Five

Cut the pieces for the sides of the back. Cut the angle using a jigsaw, a bandsaw, or a tapering jig on a tablesaw. Drill pocket holes in each end.

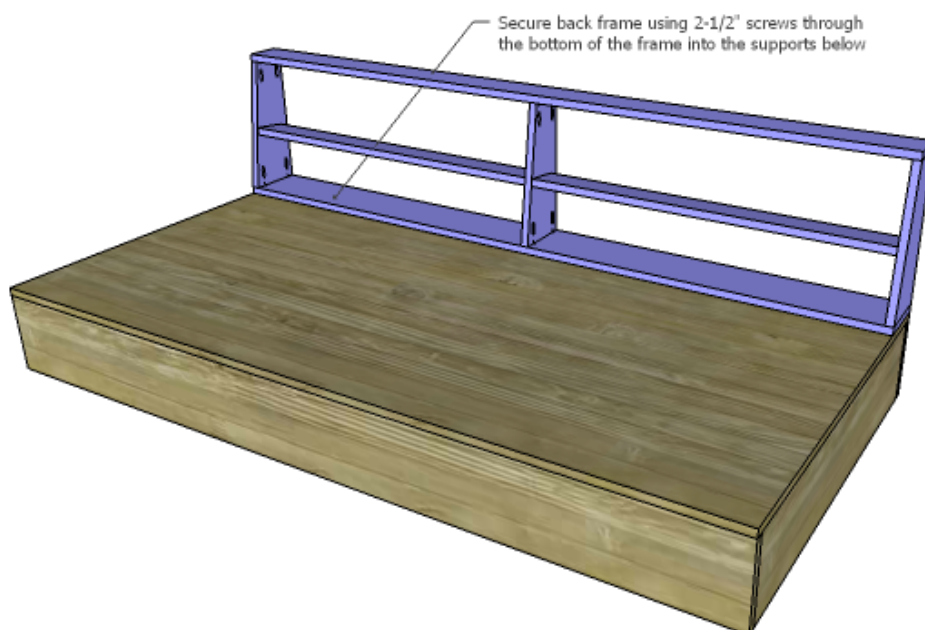
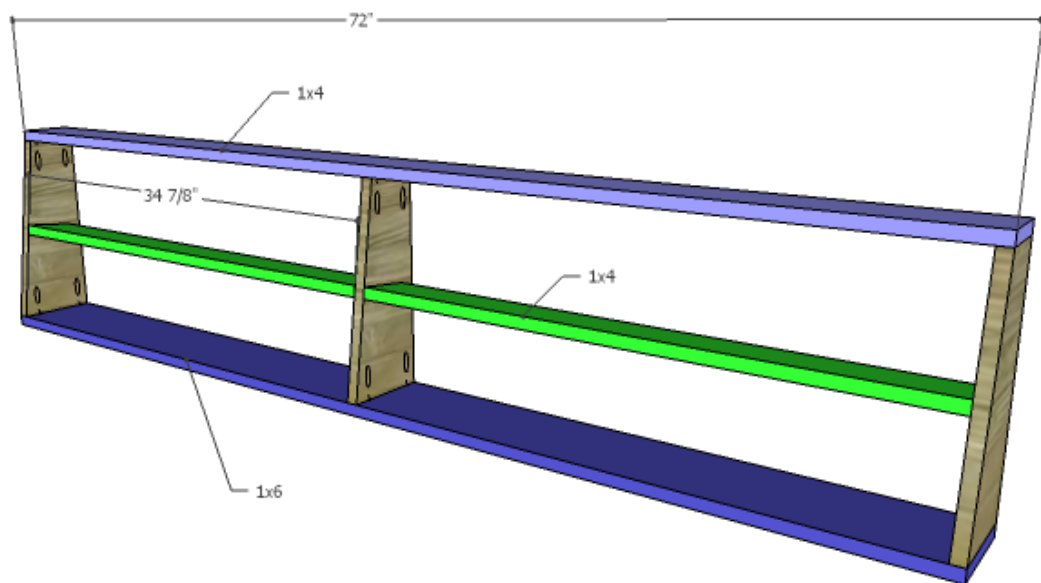


Step Six

Cut the remaining pieces for the back and assemble the frame

using glue and 1-1/4" pocket hole screws. The front edge of the center supports will follow the angle of the sides of the back.

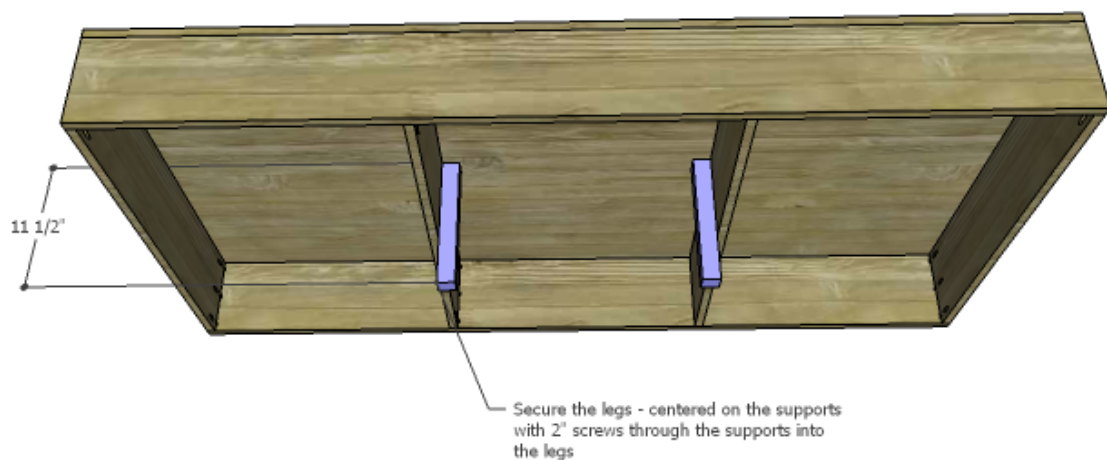
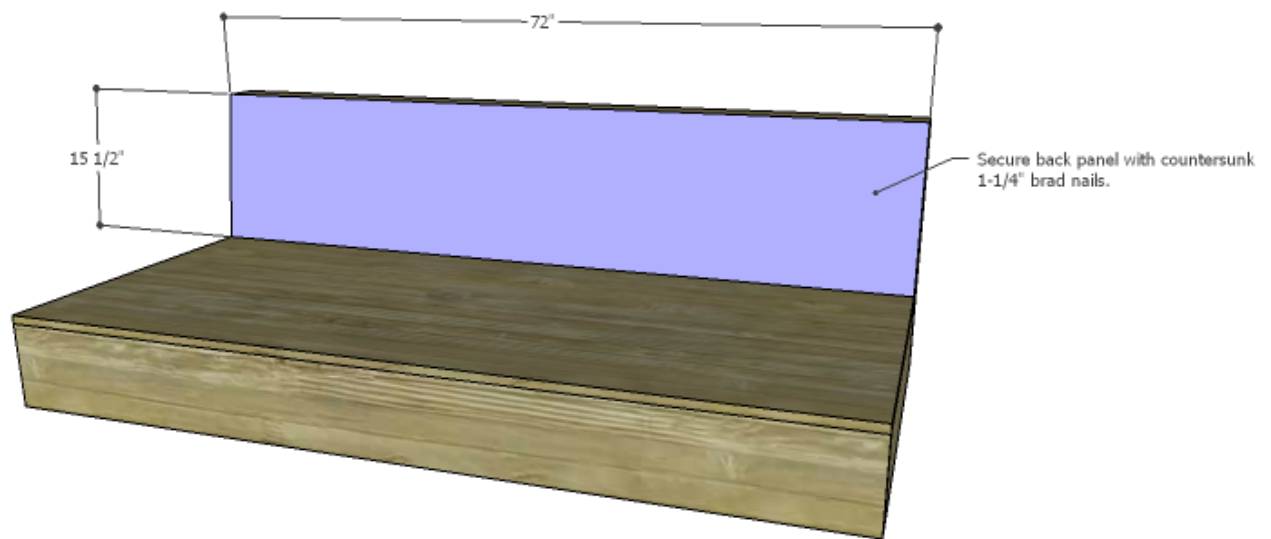
Position the back frame on the back edge of the seat. Secure the frame to the seat using glue and 2-1/2" screws. The screws will be positioned through the bottom of the frame into the back edge of the seat frame, and also through the front edge of the frame into the support closest to the back of the seat frame.



Step Seven

Cut the piece for the back. Secure the back panel to the back frame using glue and 1-1/4" brad nails. Set this piece off to the side.

Cut the pieces for the center legs. Secure them to the center supports using glue and 2" screws. Place the screws through the supports into the legs.



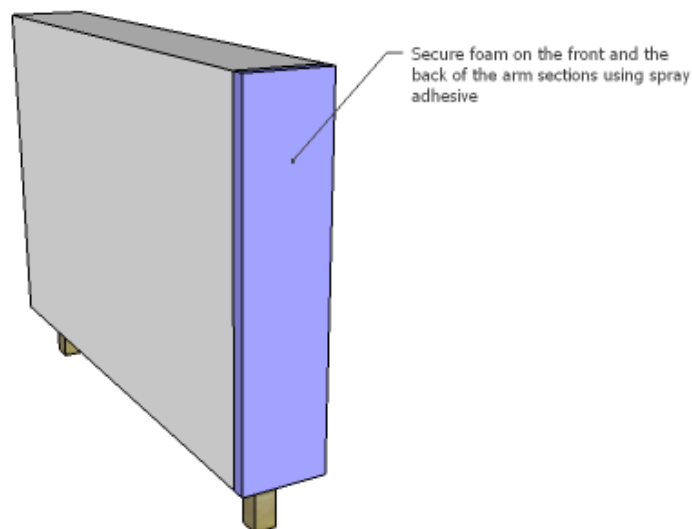
Finish the legs as desired.

To upholster and assemble the sofa:

Use the duct tape to cover the edges of the wood before applying the foam. This helps soften all of the sharp edges and corners so that the wood doesn't cut through the foam and upholstery.

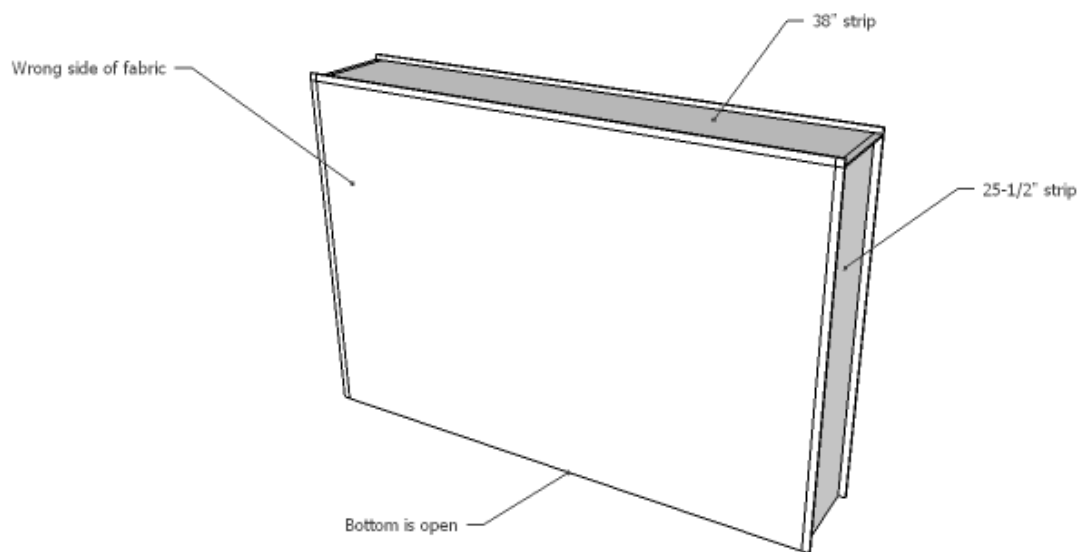
Arm Sections:

Cut two pieces of foam to cover the arm sections. The foam will be cut in one piece covering the side, over the top of the arm, and covering the other side. Secure the foam to the arm sections using the spray adhesive. Cut four strips of foam to cover the front and the back of the arm sections securing in place with spray adhesive.



The fabric for the arm sections will be sewn together to create a box to slip over the arm section, and will be secured to the bottom of the arm section. Cut four pieces of fabric measuring approximately 25-1/2" x 38" for the sides of the arm sections. This measurement includes 1/2" seam allowances. Cut four strips of fabric at 5-1/2" x 25-1/2" and two strips of

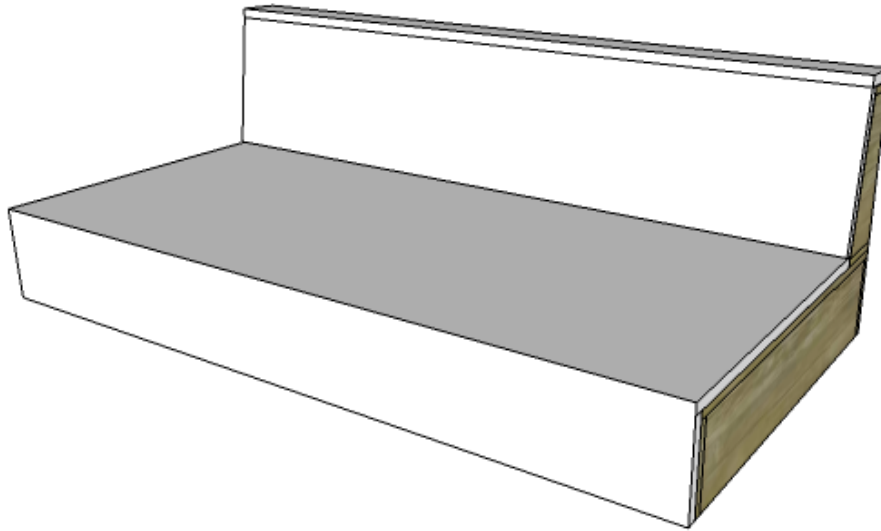
fabric at 5-1/2" x 38". Sew the strips together (end to end) to create the front, back, and top of the arm as follows: sew a 25-1/2" strip to the end of a 38" strip, then sew a 25-1/2" strip to the other end of the 38" strip. Pin the strips to one of the pieces of fabric for the arm section – the seams will match the corners of the fabric. Sew the other arm section piece to the other side of the strip matching the seams to the corners.



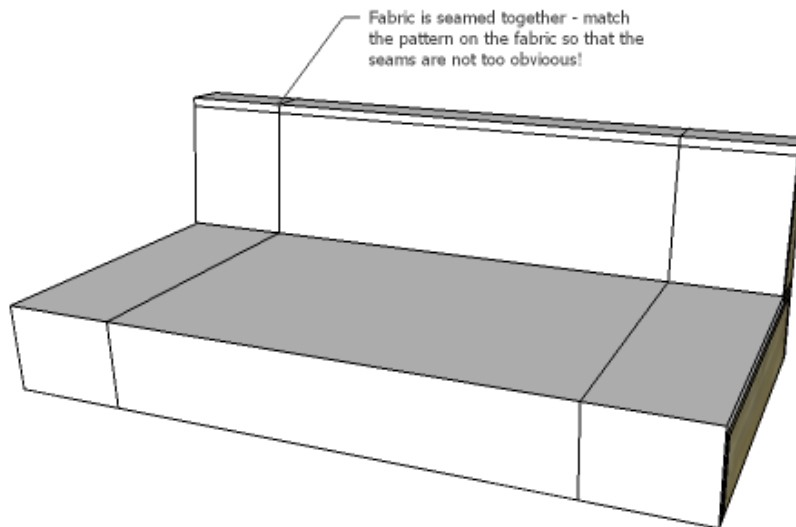
Slip the fabric over the arm sections and secure to the bottom of the arm section frame using the stapler and staples. The fabric should fit snugly.

Seat & Back Section:

Cut a piece of foam to cover the front of the seat frame, the seat itself, the back, and the top of the back frame. The foam will be flush with the sides. Secure the foam in place with spray adhesive.



Cut a piece of fabric measuring approximately 45" wide x 96" long, and two strips approximately 16" x 96" long. When cutting the pieces, match the pattern at the seams. Sew the narrower strips to each side of the wider strip. The fabric will overlap the sides by approximately 1-1/2". Starting at the front of the seat frame, staple the fabric to the bottom of the front, centering the fabric and seams. Drape the fabric over the seat, up the back, and over the top of the frame securing the fabric at the sides of the seat and back. Do not secure the fabric at the back of the seat assembly yet! It will be secured after the arm sections are attached to the seat and back section.

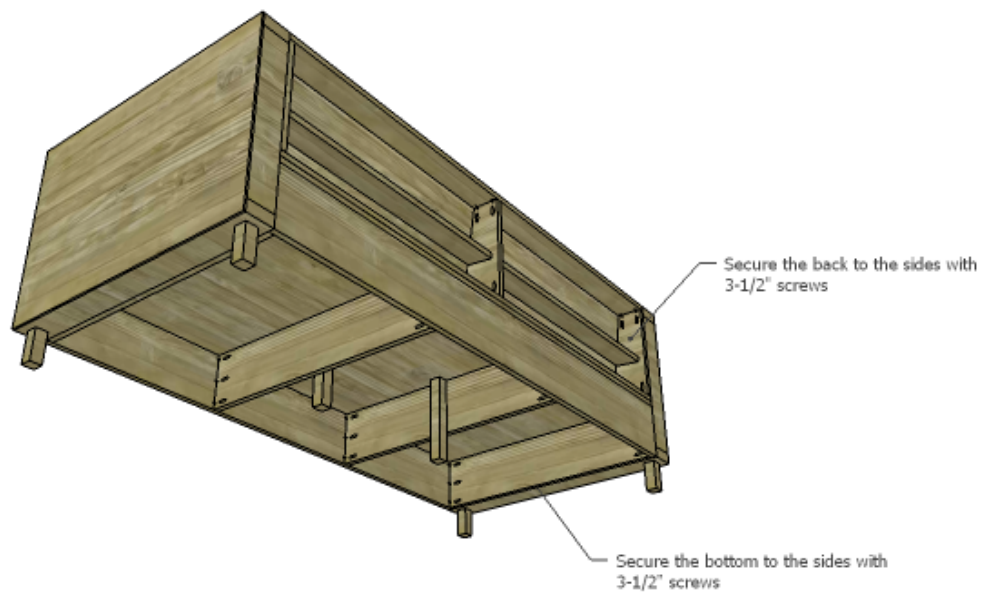


Assemble the Chair:

Lay the seat and back section on its back. Position a completed arm section at each side of the seat and back section with the 3/4" side panels facing in. The lower edges will be flush as well and the front of the arm will be flush with the front of the seat frame. Secure the seat frame and back frame to the arm section using 2-1/2" screws through the 1x8 of the seat side into the lower 2x4 of the arm section.

1-1/2" screws can be inserted through the upper area of the seat side into the arm section panels.

Place a few 2-1/2" screws through the back sides into the back 2x4 of the arm section. Also place a few 1-1/2" screws through the back sides into the arm panels. (The foam and fabric are NOT shown in the drawing below!)



Did you have any idea that building your own sofa would be so easy? I think the framing is a little easier than the upholstery which can be a tad tricky. but the method I've demonstrated here is totally easy! Have any questions about the DIY plans to build the Carlsbad sofa? I am always available to answer! Leave a comment below or send an email to me at [cher {at} designsbystudioc {dot} com](mailto:cher@designsbystudioc.com)!